

Claims

1. A method of operation of a climate control system for a vehicle cabin, including a controller for adjusting a cooling capacity of system to condition air in said cabin, the method of operation comprising the steps of:
 - 5 measuring a mean radiant temperature in said cabin;
 - measuring an air temperature in said cabin;
 - computing a difference between said mean radiant temperature and said air temperature;
 - estimating a solar radiation intensity according to said difference; and
 - 10 adjusting said cooling capacity based on the estimated solar radiation intensity.
2. The method of operation of Claim 1, wherein the cabin is bounded in part by a windshield, and the step of measuring the mean radiant temperature includes the steps of:
 - 5 placing a hollow spherical or semi-spherical housing that blocks visible light but absorbs infrared radiation in the cabin under the windshield; and
 - measuring said mean radiant temperature according to a temperature of air inside said housing.
3. The method of operation of Claim 2, including the step of:
 - measuring the temperature of air inside said housing with a thermistor or thermocouple.
4. The method of operation of Claim 3, wherein the step of estimating the solar radiation intensity includes the steps of:
 - storing a predefined relationship between said difference and said solar radiation intensity; and
 - 5 retrieving a stored value of radiation intensity based on the computed difference.